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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,146

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Kerry D. Steele

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07/02/2008

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EXAMINER

AJIBADE AKONAI OLUMIDE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,146

Applicant(s)

STEELE ET AL.

Examiner

OLUMIDE T. AJIBADE AKONAI

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19, 29-31 and 46 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-14, 16, 20, 21, 23, 27, 28, 32-45 and 47 is/are rejected.
- 7) ☒ Claim(s) 4-7, 15, 22 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 14-22, filed 1 April 2008, with respect to the rejection(s) of claim(s) 1-3, 8-16, 18-20, 27, 28, and 32-40 under 35 U.S.C § 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Becker et al 20040046642** and **Shanks et al 7,075,436**.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 8-14, 16, 20, 23, 27, 28, 32-45, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over of **Becker et al 20040046642 (hereinafter Becker) in view of Shanks et al 7,075,436 (hereinafter Shanks)**.

Regarding **claim 1**, Becker discloses a communications device identification method comprising: providing identification information (group address, see p.4, [0048]) regarding a group of wireless identification devices (RFID tags, see fig. 1, p.2, [0025]) within a wireless communications range of a reader (tag reader 12, see fig. 1, p.2, [0025]); and identifying at least some of the unidentified ones of the wireless identification devices using a search procedure (using the group address to interrogate and identify a group of RFID tags, see p.5, [0056]-[0059]).

Becker fails to disclose using the provided identification information, selecting one of a plurality of different search procedures for identifying unidentified ones of the wireless identification devices within the wireless communications range;

Shanks however, discloses using provided information (backscatter symbol or bit pattern, see col. 31, lines 32-43) to interrogate/search a plurality of unidentified tags (see fig. 1, col. 31, lines 32-65) using two different interrogation procedures (general and specific search procedure, see col. 3, lines 32-65).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shanks, by using selecting a general or specific interrogation technique to search for RFID tags based on a number/identifier, into the system of Becker, for the benefit of efficiently interrogating a population of RFID tags.

Regarding **claim 2**, as applied to claim 1, Becker further discloses wherein the providing the identification information comprises determining a range of identifiers of the wireless identification devices which may be within the wireless communications range (see p.5, [0056]-[0057]).

Regarding **claim 8**, as applied to claim 1, Becker further discloses an article of manufacture embodying executable instructions configured to cause processing circuitry to perform the method of selecting and identifying (see fig. 3, p.3-4, [0045]).

Regarding **claim 9**, as applied to claim 1, Becker discloses further comprising communicating data intermediate identified ones of the wireless identification devices and the reader (see p.6, [0070]).

Regarding **claim 10** as applied to claim 9, Becker as modified by Shanks discloses the claimed limitation. Shanks further disclose wherein the communicating from at least one of the wireless identification devices to the reader comprises using backscatter modulation (see col. 8, lines 4-13).

Regarding **claim 11**, as applied to claim 1, Becker further discloses wherein the reader and the wireless identification devices are configured to implement radio frequency identification device (RFID) communications (see fig. 1, p.2, [0025]-[0026]).

Regarding **claim 12**, Becker discloses a communications device identification method comprising: identifying a first of a plurality of wireless identification devices within a wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]); identifying a second of the wireless identification devices within the wireless communications range of the reader (identifying subsets of RFID tags using the group address, see p.4, [0048]).

Becker, however, does not specifically disclose selecting one of a plurality of different search procedures using to the identifications; and identifying at least one unidentified wireless identification device within the wireless communications range using the selected one of the search procedures.

Shanks however, discloses using provided information (backscatter symbol or bit pattern, see col. 31, lines 32-43) to interrogate/search a plurality of unidentified tags (see fig. 1, col. 31, lines 32-65) using two different interrogation procedures (general and specific search procedure, see col. 3, lines 32-65).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shanks, by using selecting a general or specific interrogation technique to search for RFID tags based on a number/identifier, into the system of Becker, for the benefit of efficiently interrogating a population of RFID tags.

Regarding **claim 13**, as applied to claim 12, Becker further discloses wherein the first and second of the wireless identification devices comprise wireless identification

devices having respective ones of a minimum and a maximum identifier (see p.5, [0057]-[0058]).

Regarding **claim 14**, as applied to claim 12, Becker discloses further comprising communicating with at least one of the identified wireless identification devices using the reader after the identifying (see p.5, [0056]-[0059], P.6, [0069]-[0070]).

Regarding **claim 16**, as applied to claim 12, Becker further discloses an article of manufacture embodying executable instructions configured to cause processing circuitry to perform the method of the identifying and the selecting (see fig. 3, p.3-4, [0045]).

Regarding **claim 20**, Becker discloses a wireless communications reader (tag reader 12, see fig. 1, p.2, [0026]) comprising: an antenna configured to communicate wireless signals within a wireless communications range (antenna 16, see fig. 1, p.2, [0026]); and processing circuitry coupled with the antenna (see fig. 3, p.3-4, [0045]) and configured to implement wireless communications with a plurality of wireless identification devices (tags 14, see fig. 1, p.2, [0025]-[0026]) within the wireless communications range via the antenna (see fig. 1, p.2, [0025]-[0026]), to analyze a number of wireless identification devices which may be present within the wireless communications range with respect to a range of identifiers of wireless identification devices which may be present within the communications range (see p.5, [0056]-[0059]).

Becker fails to disclose selecting one of a plurality of search procedures using the analysis, and to identify at least one of the wireless identification devices within the wireless communications range using the selected search procedure.

Shanks however, discloses using provided information (backscatter symbol or bit pattern, see col. 31, lines 32-43) to interrogate/search a plurality of unidentified tags (see fig. 1, col. 31, lines 32-65) using two different interrogation procedures (general and specific search procedure, see col. 3, lines 32-65).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shanks, by using selecting a general or specific interrogation technique to search for RFID tags based on a number/identifier, into the system of Becker, for the benefit of efficiently interrogating a population of RFID tags.

Regarding **claim 23** as applied to claim 20, Becker further discloses wherein the processing circuitry is configured to estimate the range of identifiers of the wireless identification devices (see p.5, [0056]-[0057]).

Regarding **claim 27** as applied to claim 20, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the processing circuitry is configured to process backscatter modulation communications received from at least one of the wireless devices (see col. 8, lines 4-13).

Regarding **claim 28**, as applied to claim 20, Becker further discloses wherein the processing circuitry is configured to implement radio frequency identification device (RFID) communications using the antenna (see fig. 1, p.2, [0025]-[0026]).

Regarding **claim 32**, Becker discloses an article of manufacture comprising: a medium comprising executable instructions (see figs. 1 and 3, p.2, [0026], p.3-4, [0045]) configured to cause processing circuitry of a wireless communications reader (tag reader 12, see fig. 1, p.2, [0026]) to: access information (group address, see p.4, [0048]) regarding a plurality of wireless identification devices which may be within a communications range of the wireless communications reader (see p.4, [0048], p.5, [0056]-[0058]).

Becker fails to disclose selecting one of a plurality of different search procedures using the accessed information, wherein the different search procedures comprise procedures for identifying unidentified ones of the wireless identification devices; and identify unidentified ones of the wireless identification devices using the selected one of the search procedures.

Shanks however, discloses using provided information (backscatter symbol or bit pattern, see col. 31, lines 32-43) to interrogate/search a plurality of unidentified tags (see fig. 1, col. 31, lines 32-65) using two different interrogation procedures (general and specific search procedure, see col. 3, lines 32-65).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shanks, by using selecting a general or specific interrogation technique to search for RFID tags based on a number/identifier, into the system of Becker, for the benefit of efficiently interrogating a population of RFID tags.

Regarding **claim 33**, as applied to claim 32, Becker further discloses wherein the

executable instructions are configured to cause the processing circuitry to access the information comprising a range of identifiers of the wireless identification devices and a number of the wireless identification devices (see p.4, [0048], p.5, [0056]-[0058]).

Regarding **claim 34**, as applied to claim 32, Becker further discloses, wherein the executable instructions are configured to cause the processing circuitry to implement wireless communications with at least one of the identified wireless identification devices (see p.2, [0025]-[0026]).

Regarding **claim 35**, as applied to claim 1, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of different search procedures individually comprise a search procedure for identifying the at least some of the unidentified ones of the wireless identification devices within an entirety of the same wireless communications range of the reader (general and specific search procedure, see col. 3, lines 32-65).

Regarding **claim 36**, as applied to claim 1, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of different search procedures individually comprise different steps which are performed to identify the at least some of the unidentified ones of the wireless identification devices (general and specific search procedure, see col. 3, lines 32-65).

Regarding **claim 37**, as applied to claim 12, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of different search procedures individually comprise a search procedure for identifying the

at least one unidentified wireless identification device within an entirety of the same wireless communications range of the reader (see col. 3, lines 32-65).

Regarding **claim 38**, as applied to claim 12, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of different search procedures individually comprise different steps which are performed to identify the at least one unidentified wireless identification device (general and specific search procedure, see col. 3, lines 32-65).

Regarding **claim 39**, as applied to claim 20, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of search procedures individually comprise a search procedure usable to identify the at least one wireless identification device within an entirety of the same wireless communications range (see col. 3, lines 32-65).

Regarding **claim 40**, as applied to claim 20, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the plurality of search procedures individually comprise different steps which are performed to identify the at least one wireless identification device (general and specific search procedure, see col. 3, lines 32-65).

Regarding **claims 41 and 43** as applied to claims 1 and 20, Becker further discloses wherein each search procedure is configured to provide unique identifications which completely identify the wireless identification devices (see p.5, [0056]-[0058]).

Regarding **claims 42 and 44** as applied to claims 1 and 20, Becker further discloses wherein the providing comprises the identification information prior to any communications of the reader with wireless identification (see p.5, [0056]-[0058]).

Regarding **claims 45 and 47** as applied to claims 12 and 32, Becker as modified by Shanks discloses the claimed limitation. Shanks further discloses wherein the search procedures are configured to be implemented independent of one another (general and specific search procedure, see col. 3, lines 32-65).

4. Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Becker et al 20040046642 (hereinafter Becker) in view of Shanks et al 7,075,436 (hereinafter Shanks)** as applied to claim 2 above, and further in view of **Petrinovic 6,927,692**.

Regarding **claims 3 and 21**, as applied to claims 2 and 20, Becker as modified by Shanks discloses the claimed limitation except wherein the providing the identification information comprises determining a number of wireless identification devices which may be within the communication range. In an analogous art, Petrinovic discloses wherein the providing the identification information comprises determining a number of wireless identification devices which may be within the communication range (determining a quantity count using modulated reflection from a tag, see col. 4, lines 6-44, col. 5, lines 4-29). It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Petrinovic by sending a sending a signal from a tag to a sensing device, into the system of Becker as modified by Shanks for the benefit of counting a tag.

Allowable Subject Matter

5. Claims 4-7, 15, 22, and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-19, 29-31, and 46 are allowed.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Art Unit: 2617

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/

Supervisory Patent Examiner, Art Unit 2617